

ABSTRACT

A router routes packets among a plurality of nodes based on entries in a route table. Entries in a route table enable mask characterize the enablement of the route table entries. The router receives a packet including an indication to modify the route table enable mask from one of the nodes. The router produces an update mask and determines which logical operation to perform on the update mask and the route table enable mask in response to at least one of the received packet, the update mask, and the route table enable mask. The router generates a new route table enable mask by performing the appropriate logical operation on the update mask and the route table enable mask in response to the determination of which logical operation should be performed and the route table enable mask is replaced with the new route table enable mask.